HIGH-POWER COMPACT DISC PLAYER
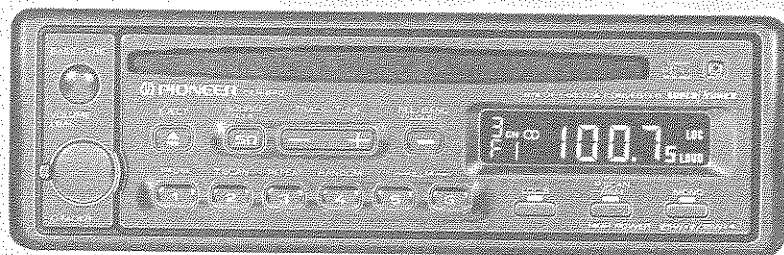## WITH FM/AM TUNER

SUPER TUNER

OWNER'S MANUAL

Thank you for purchasing this PIONEER product. Before attempting operation, be sure to read this manual.

Nous vous remercions d'avoir acheté cet appareil PIONEER. Avant de l'utiliser, prendre soin de lire ce manuel.

Muchas gracias por la adquisición de este producto PIONEER. Antes de tratar de operarlo, lea atentamente este manual.

شكرا لك على شرائك جهاز بايونير هذا. قبل محاولة تشغيله تأكد من قراءة هذا الدليل.

DEH-640

DEH-640
DEH-640
DEH-440

♆ PIONEER®
The Art of Entertainment

ENGLISH
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MANU
LOUD

الشكل ٣

Fig. 3.

3

Precautions

> CAUTION: USE OF CONTROL OR AD-
> JUSTMENT OR PERFOR-
> MANCE OF PROCEDURES
> OTHER THAN THOSE SPECI-
> FIED HEREIN MAY RESULT
> IN HAZARDOUS RADIATION
> EXPOSURE.
>
> CAUTION: THE USE OF OPTICAL IN-
> STRUMENTS
> WITH THIS PRODUCT WILL
> INCREASE EYE HAZARD.

- While driving keep your listening volume at a level which does not mask important outside traffic noises, such as emergency vehicles, etc.
- To assure proper operation of the unit, keep the vehicle interior temperature within a normal range using the vehicle's air conditioner or heater.
- Never remove the top case of the unit to attempt check or repairs. If operation of the unit is abnormal, contact your dealer or the nearest Pioneer Service Station.
- If the car's battery is disconnected for any reason, the preset memory will be erased and must be reprogrammed after recon-nection of the battery.

In case of trouble

When the unit does not operate proper-ly, contact your dealer or the nearest au-thorized PIONEER Service Station.

Changing the Tuning Step

Parts Identification (Fig. 1)
[4] Tuning

Changing the Tuning Step

The tuning steps of the AM band for this unit can be switched between 9 kHz and 10 kHz per step. The tuning step should be switched from 9 kHz (which is preset at the factory) to 10 kHz when this unit is used in North America, Central America, or South America.

	Specification	Initial setting	New setting
AM	Tuning steps	9 kHz steps	10 kHz steps
	Frequency range	531 — 1,602 kHz	530 — 1,710 kHz

1. Turn the ignition switch off.
2. While pressing the (+) side of button [4], turn the ignition switch on. It should be noted that changing the tuning steps also deletes frequencies stored in the tuning memories.
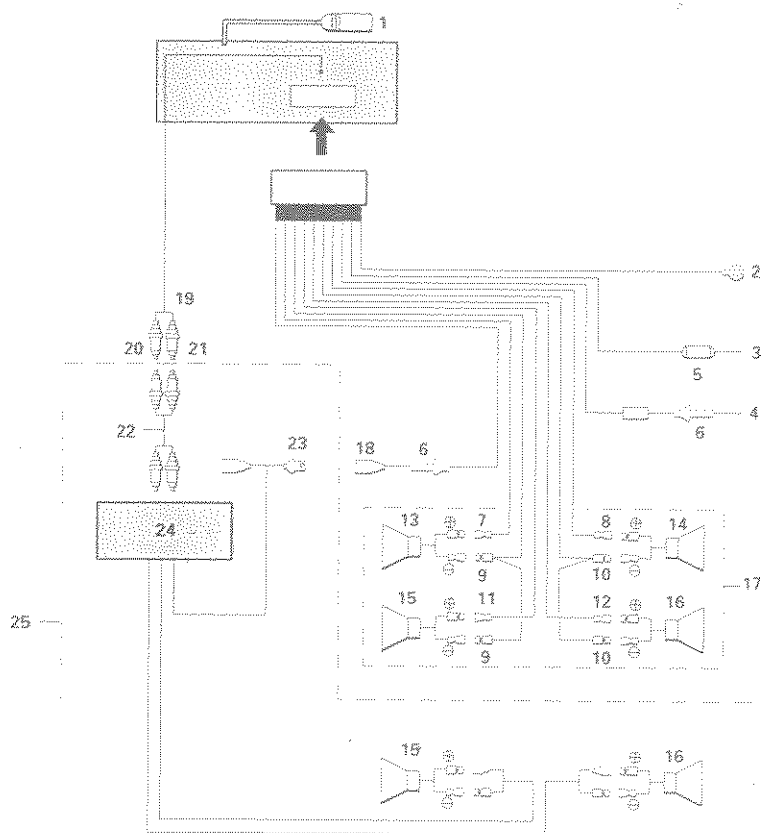
Connecting the Units

Note:

- *This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.*
- *To avoid shorts in the electrical system, be sure to disconnect the battery ⊖ cable before beginning installation.*
- *Refer to the owner's manual for details on connecting the various cords of the power amp and other units, then make connections correctly.*
- *Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around them where they lie against metal parts.*
- *Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake, and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring short-circuiting to the vehicle body.*
- *Do not shorten any leads. If you do, the protection circuit may fail to work when it should.*
- *Never feed power to other equipment by cutting the insulation of the power supply lead of the unit and tapping into the lead. The current capacity of the lead will be exceeded, causing over heating.*
- *Don't pass the orange lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.*

- *Replace fuses only with the types stipulated on the fuse holder.*
- *Since a unique BPTL circuit is employed, never wire so the speaker leads are directly grounded or the left and right speaker ⊖ leads are common.*
- *Speakers connected to this unit must be high-power types possessing minimum rating of 25 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here can damage the speakers.*

(Fig. 4)

1. Antenna jack
2. Black (ground)
   To vehicle (metal) body.
3. Red
   To electric terminal controlled by ignition switch (12 V DC) ON / OFF.
4. Orange
   To terminal always supplied with power regardless of ignition switch position.
5. Fuse resistor
6. Fuse holder
7. Green
8. Gray
9. Green / black
10. Gray / black
11. Green / red
12. Gray / red
13. Front / left speaker
14. Front / right speaker
15. Rear / left speaker
16. Rear / right speaker
17. With a 2 speaker system, connect to the 2 speakers in the front or the rear.
18. Blue
    To system control terminal of the power amp or Auto-antenna relay control terminal (Max. 300 mA 12 V DC).
19. Rear out
20. Red
21. White
22. Connecting cords with RCA pin plugs (sold separately)
23. Blue
24. Power amp (sold separately)
25. Use this for connections when you have the separately available amplifier.

Installation

Note:

- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Before finally installing the unit, connect the wiring temporarily and make sure it is all corrected up properly and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance. (Fig. 5)
- The semiconductor laser will be damaged if it overheats, so don't install the unit anywhere hot-for instance, near a heater outlet.

Fig. 5

DIN Front / Rear-mount:

This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing thread screw holes at the sides

Installation with the rubber bush (DIN Front-mount) (Fig. 6)

Installation without the rubber bush (DIN Front-mount) (Fig. 7)

1. Dashboard
2. Holder
   After inserting the holder into the dashboard, select the appropriate tabs according to the thickness of the dashboard material and bend them inwards to secure the holder in place.
3. Rubber bush
4. Screw
5. Nut (5 mm)
6. Drill a 5.5 — 6.0 mm diameter hole.
7. Screw (5 × 16 mm)
8. Strap
   Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.
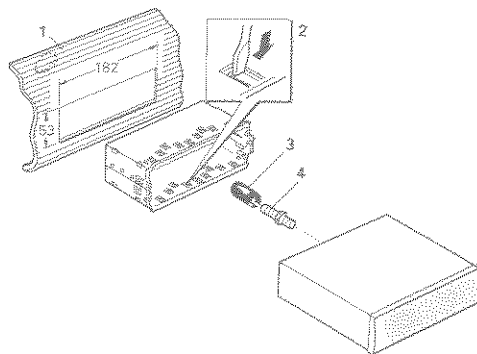

Fig. 6
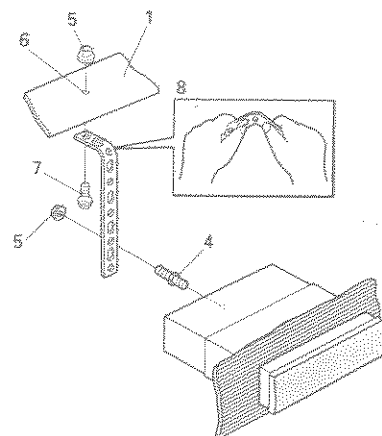
Fig. 7

7

Installation using the screw holes on the sides of the unit (DIN Rear-mount)

1. Remove the frame.
   Insert the release pin into the hole in the bottom of the frame and pull out to remove the frame. (Fig. 8)
2. Fastening the unit to the factory radio mounting bracket.
   Align the screw holes in the brackets with those in the main unit, and drive in two screws on each side. Use either bind screws (5 × 8 mm) or flush screws (5 × 8 mm), depending on the shape of the screw holes in the bracket. (Fig. 9, 10)

1. Release pin
2. Screw (5 × 8 mm)
3. Dashboard or console
4. Factory radio mounting bracket
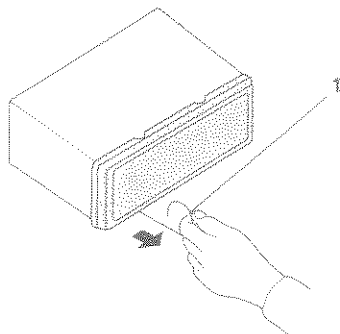
Fig. 8
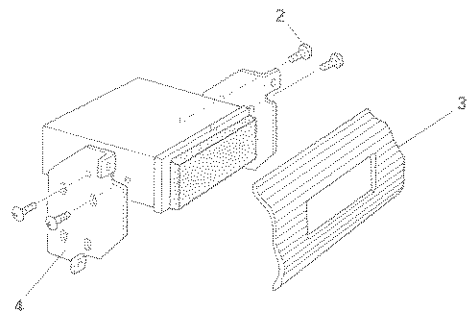
Fig. 10
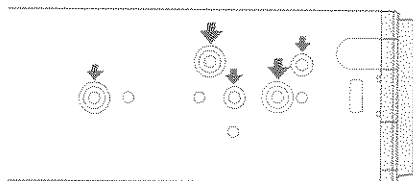
Fig. 9

Removing the unit (DIN Front-mount) (Fig. 11, 12)

Remove the frame.
Insert the release pin into the hole in the bottom of the frame and pull out to remove the frame. (Fig. 11)
Note:
When installing the frame, the groove must face downwards.

1. Release pin
2. Insert till the tab of the lever catches onto the metal fixture of the unit.
   (Point the tab of the lever upward.)
   The unit can be released from the dashboard by pulling the lever.
3. After removing the unit, pull out the lever, following step ①, ② shown above.
4. Tab

Fig. 11

Fig. 12

Using the Removable Front Panel

Note:

This function is only available on DEH-640. DEH-440 does not operate the following function.

Parts Identification (Fig. 1)

[4] Tuning
[8] Detach button

Detaching the Front Panel

• *The front panel connot be removed during disc loading or ejection.*
1. Press button [8], and the right-hand side of the panel will eject.
2. To remove the front panel, pull its right-hand side toward you. (Fig. 13)
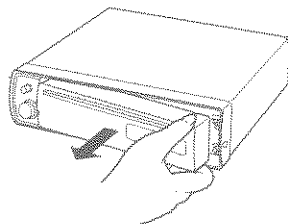
Fig. 13

• *Take care not to put pressure on the display or drop the front panel.*
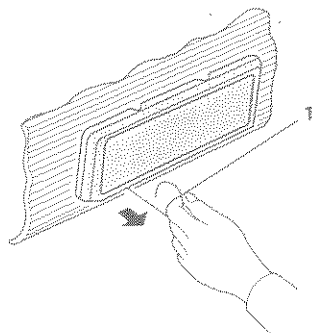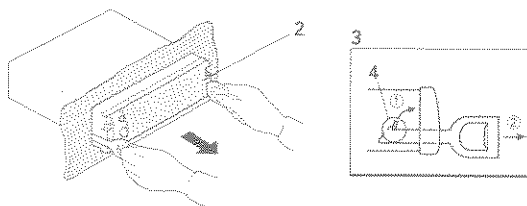
Optional Protective Case

A separately sold protective case is available for the detached front panel. This case is highly recommended to protect the front panel from shocks and scratches.

Replacing the Front Panel

With a hollow in the left-hand end of the front panel aligned to projections on the left-hand front wall of the equipment, press the panel's right-hand side against the equipment to put it into place. (Fig. 14) (Fig. 15)
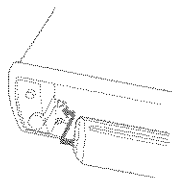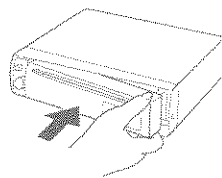
Fig. 14   Fig. 15

• *Do not place the panel from the right side since it will be locked. To unlock, press button [8].*
• *When replacing the front panel, do not put pressure on the display or control buttons.*

Precautions

• *Do not touch the contacts on the front panel or on the unit body, since this may result in poor electrical contact. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth. (Fig. 16) (Fig. 17)*
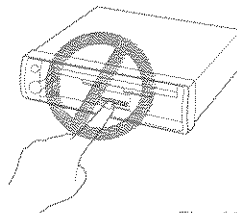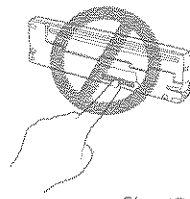
Fig. 16   Fig. 17

Precautions When Handling the Front Panel

• *Do not leave the front panel in any area exposed to high temperatures or direct sunlight.*
• *Do not drop the front panel or otherwise subject it to strong impact.*
• *Do not allow such volatile agents as benzine, thinner, or insecticides to come into contact with the surface of the front panel.*
• *Never try to disassemble the front panel.*

Adjusting Volume and Tone

Parts Identification (Fig. 1)

[1] Bass / Treble
[2] Eject
[3] Source Selector
[5] Disc Insertion Slot
[6] Loudness
[7] Display
[12], [13] Illumination Switch (DEH-640)
[18] Volume / Balance
[19] Fader

Switching Power On

Tuner

Press button [3] to switch the tuner power on. Press button [3] again to switch the power off.

CD Player

When a disc is inserted half-way into the disc insertion slot [5] with its label side upward, the disc is automatically loaded and played. To remove the disc, push button [2].

Changing the source

To change the source, push button [3] with the disc inserted in the slot.
At each press of the button, the source changes as follows: CD player — Tuner — OFF.

Adjusting Audio

Adjusting Volume

Turn the control [18] to the right to raise the volume. Turn the control to the left to lower the volume.

Adjusting the Fader

Turn the control [19] upward to fade sound in the rear speakers. Turn the control downwards to fade sound in the front speakers.
• With a 2 speaker system, set the control in a central position.

Adjusting Bass

Turn the control [1] to the right to increase bass. Turn the control to the left to decrease bass.

Adjusting Treble

Pull the control [1] towards you until it clicks. Turn the control to the right while it is in this position to increase treble. Turn it to the left to decrease treble. After adjusting the control, push it back to its original position.

Adjusting Balance

Pull the control [18] towards you until it clicks. Turn the control to the right while it is in this position to fade sound in the left speaker. Turn it to the left to fade sound in the right speaker. After adjusting the control, push it back to its original position.

Using the Loudness Function

Press button [6] for about 2 seconds and the "LOUD" indication will appear on the display. This loudness function lets you enhance both high and low frequencies to give a more natural sound at low volumes. To cancel this function, press button [6] again for about 2 seconds.

Switching Illumination Colour (DEH-640)

Pressing buttons [12] and [13] simultaneously will turn the illumination into green and umber.

Using the Radio

Parts Identification

Fig. 1

[3] Source selector
[4] Tuning / Local seek sensitivity /
    Seek, Manual
[6] Band
[7] Display
[9] FM stereo / Mono
[10] Preset scan /
     Best stations memory (BSM)
[11] Local station
[12]~[17] Preset

Fig. 2

[20] Preset number
[21] FM stereo
[22] Frequency
[23] FM mono
[24] Local station
[25] Manual
[26] Loudness
[27] Band

Listening to the Radio

1. Turn on the tuner's power by pressing
   button [3].
Each time the button is pushed the main
unit switches between tuner and power off
modes.
- This operation will differ if there is a CD
  inserted in the CD player. Refer to the sec-
  tion on the source switch on page 11 for
  details.
2. Press Button [6] to select a band.

$$F\ I \rightarrow FII \rightarrow FIII \rightarrow A$$
(FM1)   (FM2)   (FM3)   (AM)

3. Use seek tuning to tune in a frequency.
Ensure that "MANU" [25] is not indicated
on the display. (If so, turn it off by simulta-
neously pressing the (+) and the (–) sides of
button [4].)
Press either the (+) side or the (–) side of
button [4]. When the (+) side is pressed, the
tuner will automatically receive high fre-
quencies.
When the (–) side is pressed, it will automati-
cally receive low frequencies.
4. Adjust volume and tone (see page 11).
5. Assign the tuned frequency to one of the
   Buttons in Bank [12]~[17] (preset memo-
   ry).
Press and hold down one of the buttons in
Bank [12]~[17] for at least 2 seconds. The
frequency is assigned to the selected but-
ton when the preset number [20] stops
flashing on the display. Up to 18 FM sta-
tions (6 each for FM1, FM2 and FM3), and
six AM stations can be assigned to the pre-
set memory buttons in Bank [12]~[17].

6. Once a frequency is assigned to a Button
   in Bank [12]~[17], you just need to press
   that Button to tune it in.
This also causes the number of the button
pressed to appear at Position [20] on the
display.

Adjusting Seek Sensitivity

The seek tuning function of this tuner lets
you select between a local setting for recep-
tion of strong stations only, and a DX (dis-
tant) setting for reception of weaker sta-
tions. The local setting also has 4 seek tun-
ing sensitivity levels for FM and 2 levels for
AM to match local conditions.

Changing the Local Seek Sensitivity

1. Use button [6] to select a band.
2. Hold down the button [11] for more than
   2 seconds, and the display will show you
   the current local seek sensitivity
   (Example: "LOC2") for about 5 seconds.
3. While the local seek sensitivity remains
   on the display, press the (+) side of but-
   ton [4] to increase the sensitivity level,
   and the (–) side to decrease the level as
   shown below.
FM : LOC1 ⇌ LOC2 ⇌ LOC3 ⇌ LOC4
AM : LOC1 ⇌ LOC2
The LOC4 setting allows reception of only
the strongest stations, while lower set-
tings let you receive progressively weaker
stations.
- The display of local seek sensitivity re-
  turns to the frequency when about 5 sec-
  onds have elapsed after the change of
  sensitivity.

Switching between Local and DX

Press button [11] to switch between Local and DX (distant) seek tuning.
When "LOC" [24] is shown on the display, seek tuning is performed with the local seek sensitivity. Otherwise, seek tuning is performed with the DX seek sensitivity.

Manual Tuning

Use manual tuning when stations are too weak to be picked up by seek tuning.
1. Turn on "MANU" [25] by simultaneously pressing the (+) side and the (–) side of button [4].
2. Each press of the (+) side of button [4] increases the frequency in 50 kHz steps in the FM band, 9 kHz in the AM band. Pressing the (–) side of button [4] decreases the frequency. Holding down either side of button [4] changes the frequency at high speed.
* AM frequencies are turned in 10 kHz steps after the tuning steps are changed.

Switching between FM Stereo and Mono

Generally, it is best to allow the "Super Tuner" function to automatically set the optimum listening conditions. [21] turns on during stereo broadcast is in reception. When there is a large amount of noise, you can press button [9] for clearer mono reception ("MONO" [23] will appear on the display).

BSM (Best Stations Memory)

This function automatically locates stronger stations and automatically assigns their frequencies to the buttons in Bank [12]~[17], from strongest to weakest. It comes in handy when trying to find local stations while driving.
1. Press button [6] and select a band.
2. Hold down button [10]. After about 2 seconds, BSM search will start. At this time, "----" will flash on the display.
3. The frequency display will return once BSM search is complete, and frequencies are assigned to buttons 1 through 6 in Bank [12]~[17].
* At the end of the BSM search, the displayed frequency is that assigned to button [1] of Bank [12]~[17].
* You can cancel BSM search by pressing button [10] again.
* *If there are fewer than 6 strong stations in the area, some of the buttons in Bank [12]~[17] will not be assigned frequencies, so they will retain any frequencies assigned to them previously.*
* *BSM search may take as long as 30 seconds in areas where there are few strong stations.*

Preset Scan Tuning

This function lets you automatically monitor the stations assigned to the preset buttons.
1. Press the button [10] and the preset number [20] flash.
Each station assigned to the buttons in Bank [12]~[17] will be automatically tuned in for about 8 seconds.
2. When you hear a station that you like, press button [10] again to cancel preset scan tuning and remain at that station.

Playing Compact Discs

Parts Identification

Fig. 1
[2] Eject
[3] Source selector
[4] Track number search / Fast forward, Reverse
[5] Disc insertion slot
[7] Display
[14] Random play
[15] Music repeat
[16] Highlight scan
[17] Pause

Fig. 3
[26] Loudness
[28] Track number
[29] Manual

Discs

* *Only use compact discs (optical digital audio discs) bearing the mark shown below. (Fig. 18)*

Fig. 18

- Be sure never to touch the signal surface when handling discs. Pick up discs by grasping the outer edges or the edge of the hole and the outer edge. (Fig. 19) (Fig. 20)
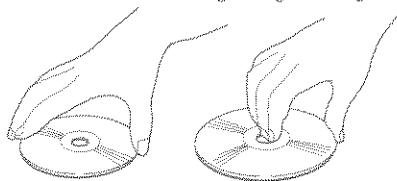

Fig. 19   Fig. 20

- Do not affix paper or tape, and avoid scratching the side of the disc which contains the label (contents of disc).
- The disc revolves at high speed within the player unit, so defective (cracked or badly bent) discs should not be used.
- Dust and/or finger smudges will have no direct effect on the signal recorded on the disc, but dirt can decrease the amount of light reflected from the recorded surface, thus affecting sound quality. If the disc should become soiled, gently wipe the surface with a soft lint-free cloth, wiping from the center of the disc to the edge. (Fig. 21)
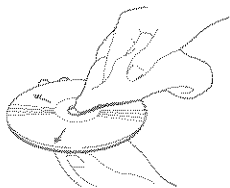

Fig. 21

- Do not use record sprays or antistatic agents. Such volatile chemicals as benzine and thinner can also damage the surface of the disc and should not be used.
- As with traditional audio records, compact discs are made of plastic. To avoid warping, keep the discs in their cases and do not store them in places exposed to direct sunlight.

Listening to the Compact Disc

1. On inserting the CD, with the label side up, half way into the CD slot [5], it will automatically be set into position and start to play.
The track number [28] indicator will light.
2. Adjust volume and tone (see page 11).
3. To stop CD playback, press button [3] turning the power off.
Pressing the button will change the source as follows: CD Player — Tuner — OFF.
Press button [3] again to restart playback. It will play from close to where it was previously stopped.
4. To remove or change discs, press button [2].
When the disc is ejected, pressing it will cause it to be set into position again, and playback to start.

Note:
- In order to protect the disc, eject it after it has stopped rotating. The timing of ejection may differ according the disc.
- If a disc can only be inserted halfway, or if the disc does not play after being loaded, something may be wrong with the disc. Eject the disc by pressing button [2],

- Insert the disc with its label (printed) side facing up. If the disc is inserted with the label side facing down, it will not play, and the recorded side may be damaged.
- Do not insert 2 discs into the slot at the same time. This may cause a malfunction.
- Do not leave an ejected disc in the insertion slot for extended periods since direct sunlight can cause warping. Always return discs to their cases and store in areas not exposed to direct sunlight. (Fig. 22)

Discs should not be left like this for extended periods.
Fig. 22

- Do not leave an ejected 8-cm CD in the slot while driving. The vibration may make it drop out.
- When driving on an uneven road, the player may not reproduce every sound property.

Condensation
- During winter the inside of the vehicle may be very cold. If the heater is turned on and the player is used soon after, the disc or optical parts (prism, lens, etc.) may became misted up. If the disc is misted up, wipe it with a soft cloth. If the optical parts are misted up, wait for about an hour for them to worm up. They will

Track Number Search

The desired track on the disc currently being played can be selected by track (or song) number.

1. Ensure that "MANU" [29] is not indicated on the display. If so, turn it off by simultaneously pressing the (+) side and the (–) side of button [4].
2. Use the button [4] to select a track. Pressing the (+) side increases the track number [28], and pressing the (–) side decreases it. Holding the button down continuously increases or decreases the track number.

Using Fast Forward and Reverse

1. Press simultaneously both (+) and (–) sides of the button [4] "MANU" [29] will appear on the display. At this time the display will show the amount of elapsed disc play time (Example: "01'05"").
2. Press the (+) side of button [4] for fast forward, and the (–) side for reverse.
* Sound is output during fast forward and reverse operations.
* When a disc in which there are several seconds between tracks is used, the amount of elapsed disc-play time is shown, for example, as "–'02"", "–'01"" and "–'00"".

Pausing

1. Press button [17] to pause during disc playback (Track number [28] will change to "----").
2. Press button [17] again to release pause.
* It is possible to select music even during pause by using the track number search ("----" [28] will change to Track number, while the music is being selected). When the selection is completed, the playback will be paused at the beginning of the music.

Using Highlight Scan

Highlight Scan is designed to enable you to conveniently scan all pieces of music contained in the disc by playing 10 seconds each at your designated point of time after the start of the music. The starting time of play is set at one minute in factory. Therefore, the Highlight Scan begins one minute after the start unless you designate it otherwise.

When you do not want to change the factory-set time:

1. Pressing button [16] ("SC" will appear on the display).
2. The contained pieces of music will be played in sequence for 10 seconds each one minute after the beginning.
3. Press button [16] again when your selected piece comes, and it will continue to play. At this point, the Highlight Scan discontinues to operate.
* The previous function automatically resumes when a piece of music with which Highlight Scan began returns.

Changing the Starting Time of Highlight Scan

When you want to set the starting time of the Highlight Scan to 30 seconds:

1. Indicate "MANU" [29] on the display by simultaneously pressing the (+) side and the (–) side of button [4].
2. Keep pressing either (+) or (–) side of button [4] until the numerals reaches 30.
3. Press button [16] for 2 or more seconds ("SC" will appear on the display). Highlight Scan will begin 30 seconds after the start of the next piece of music.
* The starting time of Highlight Scan can be designated at ten or tens of seconds only. A tenth or tenths of seconds can be disregarded.
* If a piece of music ends before your designated point of time at which Highlight Scan starts, the scanning is performed for its beginning 10 seconds.
* If a piece of music lasts less than 10 seconds, so does the Highlight Scan.
* You may wish to change the starting time longer without suspending the function. You may do so, however, only to a relatively long-playing piece of music because, as a matter of course, the time cannot be set so as to come after the end of the music.

Using Music Repeat and Random Play

Music Repeat

1. To repeat the music you are listening to, press button [15] ("RP" will appear on the display).
2. To cancel music repeat, press button [15] to turn off "RP".
* When music repeat is not operational, the whole disc will be played repeatedly.

Random Play

1. To play music randomly, press button [14] ("Rd" will appear on the display). Once the current track has been played, the microprocessor will randomly select the next and subsequent tracks.
2. To cancel random play, press button [14] to turn off "Rd".
* Since selections are played in random order, the same selection may be played twice in succession.

Error Mode

Should an abnormality occur — for example, the built-in CD Player cannot be operated, or the music stops during CD playback — the display of this unit will indicate an error mode. (Example: "E-10")

While it the unit is in error mode, a number will be displayed indicating the cause of the error, so please check the items listed below. If you cannot fix the problem after checking the cause of the error, please contact your dealer or your nearest Pioneer service center.

HEAT indicator

To prevent deterioration in the semi-conductor laser from overheating, playback of a CD will stop when the temperature surrounding of this unit rise during play. When this occurs, "HHHH" will be indicated on the display. Please wait until the temperature drops.

Display	Cause	Treatment
11, 12	Dirt or a scratch on the disc stops the laser beam from being able to focus.	Wipe the dirt off the disc. Exchange the disc if it is scratched.
14	An unrecorded compact disc (CD-R), can be recorded on once is being used.	When you use a CD-R, load one that has been recorded on.
30	Dirt or a scratch on the disc hinders the track number search function.	Wipe the dirt off the disc. Exchange the disc if it is scratched.
10, 12, A0	Electrical or mechanical system fault.	Turn the car ignition switch OFF, then ON again, or change to other sources except CD playback, and then to CD playback again. If the error indication does not disappear, contact your dealer or your nearest Pioneer service station.

Using the Clock Display

Parts Identification (Fig. 1)
[3] Clock
[7] Display
[16] Minute Adjustment
[17] Hour Adjustment

Displaying the Time
The clock is displayed when button [3] is pressed (for more than 2 seconds). Following the same procedure will turn off clock display.
• The clock display can be used only when the main unit is in operation.
• When the clock display is ON, pressing other buttons will release the clock display. The display will be restored approximately 25 seconds after the button operation has been completed.

Adjusting the Time
Adjusting the Hours
Press button [3] till the clock is displayed (for more than 2 seconds). While pressing button [3], press button [17] simultaneously to adjust the hour setting of the clock. Each press of button [17] advances the hour setting by one hour, and holding it down advances the setting at high speed.

Adjusting the Minutes
Press button [3] till the clock is displayed (for more than 2 seconds). While pressing button [3], press button [16] simultaneously to adjust the minute setting of the clock. Each press of button [16] advances the minute setting by one minute, and holding it down advances the setting at high speed.

Specifications

General

Power source............... 14.4 V DC (10.8 — 15.6 V allowable)
Grounding system .... Negative type
Max. current consumption .... 7 A
Dimensions (chassis).............. 178 (W) × 50 (H) × 155 (D) mm
              (nose) .... 170 (W) × 48 (H) × 14 (D) mm
Weight... 1.5 kg

Amplifier

Continuous power output is 10 W per channel min. into 4Ω, both
channels driven 50 to 15,000 Hz with no more than 5% THD.
Max. power output .... 25 W × 2/15 W × 4 (EIAJ)
Continuous power output .... 11 W × 2 (1% dist. at 1 kHz)
Load impedance........................... 4Ω (4 — 8Ω allowable)
Preout output level/
    output impedance (pre out)........................ 500 mV/1 kΩ
Tone controls (bass) .... ±10 dB (100 Hz)
              (treble) .... ±10 dB (10 kHz)
Loudness contour .... +10 dB (100 Hz), +6.5 dB (10 kHz)
                                           (volume: –30 dB)

CD player

System................................ Compact disc audio system
Usable discs... Compact disc
Signal format .... Sampling frequency: 44.1 kHz
                          Number of quantization bits: 16; linear
Frequency characteristics.................. 5 — 20,000 Hz (±1 dB)
Signal-to-noise ratio .... 94 dB (1 kHz) (IEC-A network)
Dynamic range.................................... 90 dB (1 kHz)
Number of channels .... 2 (stereo)

FM tuner

Frequency range .... 87.5 — 108 MHz
Usable sensitivity .... 11 dBf (1.0µV/75Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity .... 16 dBf (1.7µV/75Ω, mono)
Signal-to-noise ratio......................... 70 dB (IEC-A network)
Distortion .... 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response..................... 30 — 15,000 Hz (±3 dB)
Stereo separation .... 40 dB (at 65 dBf, 1 kHz)

AM tuner

Frequency range .... 531 — 1,602 kHz (9 kHz)
                                 530 — 1,710 kHz (10 kHz)
Usable sensitivity .... 18µV (25 dB) (S/N: 20 dB)
Selectivity .... 50 dB (±9 kHz)
                                           50 dB (±10 kHz)

Note:

Specifications and the design are subject to possible modification with-out notice due to improvements.